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UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Carlos F. Barbas III et al.)
)
Serial No.: 10/078,757)
) Art Unit: 1642
Filed: February 19, 2002)
)
For: HUMANIZATION OF) Atty. Docket No.: TSRI 598.0 Con1
MURINE ANTIBODY)

COMMUNICATION

Commissioner for Patents
Washington, D.C. 20231

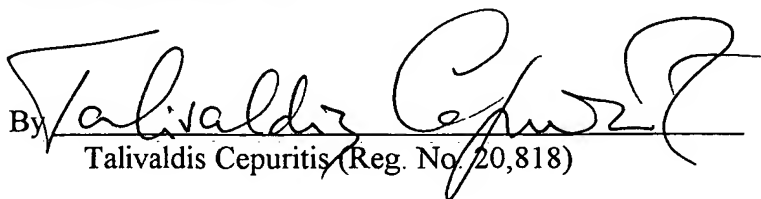
Sir:

In response to the Notice to Comply with Requirements for Patent Applications Containing Nucleotide Sequence And/Or Amino Acid Sequence Disclosures mailed March 22, 2002, submitted herewith is a substitute copy of the Sequence Listing in paper and computer readable form and a copy of the notice.

These submissions do not constitute new matter and are supported in the application as filed. To the best of my information and belief, the sequence listing information recorded in computer-readable form is identical to the paper copy of the sequence listing.

Please charge any fees concerning this matter or credit any overpayment to our Deposit Account No. 15-0508.

Respectfully submitted,

By 
Talivaldis Cepuritis (Reg. No. 20,818)

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APPLICATION NUMBER	FILING/RECEIPT DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NUMBER
10/078,757	02/19/2002	Carlos F. Barbas III	TSRI 598.0 Con.1

CONFIRMATION NO. 7970

FORMALITIES LETTER



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Date Mailed: 03/22/2002

**NOTICE TO COMPLY WITH REQUIREMENTS FOR PATENT APPLICATIONS
CONTAINING NUCLEOTIDE SEQUENCE AND/OR AMINO ACID SEQUENCE
DISCLOSURES**

Applicant is given **TWO MONTHS FROM THE DATE OF THIS NOTICE** within which to file the items indicated below to avoid abandonment. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

- A copy of the "Sequence Listing" in computer readable form has been submitted. However, the content of the computer readable form does not comply with the requirements of 37 C.F.R. 1.822 and/or 1.823, as indicated on the attached copy of the marked -up "Raw Sequence Listing." Applicant must provide a substitute computer readable form (CRF) copy of the "Sequence Listing" and a statement that the content of the sequence listing information recorded in computer readable form is identical to the written (on paper or compact disc) sequence listing and, where applicable, includes no new matter, as required by 37 CFR 1.821(e), 1.821(f), 1.821(g), 1.825(b), or 1.825(d).

For questions regarding compliance to these requirements, please contact:

- For Rules Interpretation, call (703) 308-4216
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*A copy of this notice **MUST** be returned with the reply.*

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Initial Patent Examination Division (703) 308-1202

PART 2 - COPY TO BE RETURNED WITH RESPONSE



- 1 -

SEQUENCE LISTING

<110> BARBAS, Carlos F., III
RADER, Christoph

<120> HUMANIZATION OF MURINE ANTIBODY

<130> TSRI 598.0 Con1

<140> US 10/078,757

<141> 2002-02-19

<150> US 08/986,016

<151> 1997-12-05

<160> 56

<170> FastSEQ for Windows Version 4.0

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<212> PRT

<213> Mus Musculus

<220>

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<223> PCR Primer for PelB Leader Sequence

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<210> 27
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<213> Mus Musculus

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<210> 34
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<211> 69

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<211> 50

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<210> 38

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Trp Val Arg Gln Ile Pro Glu Lys Arg Leu Glu Trp Val Ala Lys Val
35 40 45
Ser Ser Gly Gly Gly Ser Thr Tyr Tyr Leu Asp Thr Val Gln Gly Arg
50 55 60
Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr Leu Gln Met
65 70 75 80
Ser Ser Leu Asn Ser Glu Asp Thr Ala Met Tyr Tyr Cys Ala Arg His
85 90 95
Asn Tyr Gly Ser Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val
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Ser Ala Ala Lys Thr Thr Pro Pro Ser Val Tyr Pro Leu Ala Pro Gly
115 120 125
Ser Ala
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35 40 45
Lys Tyr Ala Ser Gln Ser Ile Ser Gly Ile Pro Ser Arg Phe Ser Gly
50 55 60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Ser Ile Asn Ser Val Glu Thr
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20 25 30
Leu His Trp Tyr Gln Gln Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile

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      35              40              45
Lys Tyr Ala Ser Gln Pro Val Phe Gly Val Pro Ser Arg Phe Arg Gly
  50              55              60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Tyr Ser Leu Glu Ala
  65              70              75              80
Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Ser Asn Ser Trp Pro His
      85              90              95
Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Arg Thr
      100              105

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<210> 50

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<212> PRT

<213> Artificial Sequence

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<223> Hybrid mouse - human sequence

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Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Ala Ser Ile Ser Arg Gly
      20              25              30
Gly Tyr Tyr Trp Ser Trp Ile Arg Gln Tyr Pro Gly Lys Gly Leu Glu
      35              40              45
Trp Ile Gly Tyr Ile His His Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
      50              55              60
Leu Lys Ser Arg Val Thr Ile Ala Ile Asp Thr Ser Lys Asn Gln Leu
      65              70              75              80
Ser Leu Arg Leu Thr Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
      85              90              95
Cys Ala Arg His Asn Tyr Gly Ser Phe Ala Tyr Trp Gly Gln Gly Thr
      100              105              110
Leu Val Thr Val Ser Ser
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<210> 51

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<213> Artificial Sequence

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<223> Hybrid mouse - human sequence

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  1              5              10              15
Thr Leu Phe Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Ser Gly
      20              25              30
Gly Tyr Tyr Trp Ser Trp Ile Arg His His Pro Gly Lys Gly Leu Glu
      35              40              45

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Trp Ile Gly Tyr Ile His His Arg Ala Ala Pro Tyr Tyr Asn Pro Ser
 50                      55                      60
Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Arg Asn Gln Ile
 65                      70                      75                      80
Ser Leu Lys Leu Arg Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
                      85                      90                      95
Cys Ala Arg His Asn Tyr Gly Ser Phe Ala Tyr Trp Gly Gln Gly Thr
                      100                      105                      110
Leu Val Thr Val Ser Ser
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<210> 52

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<223> Hybrid mouse - human sequence

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                      20                      25                      30
Gly Tyr Tyr Trp Ser Trp Ile Arg Gln His Pro Gly Lys Gly Leu Glu
                      35                      40                      45
Trp Ile Gly Tyr Ile His His Ser Ala Gly Thr Tyr Tyr Asn Pro Ser
                      50                      55                      60
Leu Lys Ser Arg Val Thr Met Ser Val Asp Thr Ser Lys Asn Gln Leu
 65                      70                      75                      80
Ser Leu Lys Leu Thr Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
                      85                      90                      95
Cys Ala Arg His Asn Tyr Gly Ser Phe Ala Tyr Trp Gly Gln Gly Thr
                      100                      105                      110
Leu Val Thr Val Ser Ser
                      115

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<210> 53

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<223> Hybrid mouse - human sequence

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                      20                      25                      30
Gly Tyr Tyr Trp Ser Trp Ile Arg His His Pro Gly Lys Gly Leu Glu

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35 40 45
Trp Ile Gly Tyr Ile His His Ser Ala Gly Thr Tyr Tyr Asn Pro Ser
50 55 60
Leu Lys Ser Arg Val Thr Met Ser Ala Asp Thr Ser Lys Asn Gln Leu
65 70 75 80
Ser Leu Lys Leu Ala Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
85 90 95
Cys Ala Arg His Asn Tyr Gly Ser Phe Ala Tyr Trp Gly Gln Gly Thr
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Leu Val Thr Val Ser Ser
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Ala Val Ser Trp Val Arg Gln Ala Pro Gly Gln Arg Phe Glu Trp Leu
35 40 45
Gly Gly Ile Val Ala Ser Leu Gly Ser Thr Asp Tyr Ala Gln Lys Phe
50 55 60
Gln Asp Lys Leu Thr Ile Thr Val Asp Glu Ser Thr Ala Thr Val Tyr
65 70 75 80
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85 90 95
Ala Arg His Asn Tyr Gly Ser Phe Ala Tyr Trp Gly Gln Gly Thr Leu
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